

Commonwealth of Kentucky
Division for Air Quality
PERMIT STATEMENT OF BASIS

DRAFT

Conditional Major, Construction / Operating

Permit: F-08-004

Northern Contours of Kentucky, Inc.

Vanceburg, Kentucky 41179

Date January 25, 2008

Sajjad Quabili, Reviewer

SOURCE ID: 21-135-00022

AGENCY INTEREST: 99172

ACTIVITY: APE20080001

SOURCE DESCRIPTION:

The Vanceburg facility of Northern Contours, Incorporated located at 742 West KY 8, Vanceburg, Kentucky 41179, houses its cabinet door manufacturing division. Currently, the facility operates miscellaneous wood working operation. On January 7, 2008, Northern Contours applied to the Division to add five paint spray booths for the door manufacturing plant. The maximum estimated door production is 2,500 pieces per day.

This source will consist of mainly surface coating operations and miscellaneous wood working operations. The emissions from this facility will be volatile organic compounds (VOCs), particulate matter (PM/PM₁₀), and hazardous air pollutants (HAPs) from the surface coating operations and particulate matter (PM/PM₁₀) from the wood working operations.

The source-wide potential to emit of VOCs is greater than 100 tons per year; therefore, the source is potentially a major source under 401 KAR 52:020, *Title V Permits*. Northern Contours has requested to take limit on the source-wide emissions of VOCs to less than Title V major source threshold. The source will be issued a Conditional Major constructing/operating permit pursuant to 401 KAR 52:030, *Federally Enforceable Permits for Non-major Sources*.

COMMENTS:

Northern Contours will construct/operate the following five paint spray booths at their facility:

- **EP 02 Spray booth #1**
This spray booth will consist of three paint spray applicators (Applicator #1, Applicator #2 and Applicator #3).
- **EP 03 Spray booth #2**
This spray booth will consist of three paint spray applicators (Applicator #4, Applicator #5 and Applicator #6).
- **EP 04 Spray booth #3**
This spray booth will consist of two paint spray applicators (Applicator #7 and Applicator #8).

- **EP 05 Spray booth #4**

This spray booth will consist of two paint spray applicators (Applicator #9 and Applicator #10).

- **EP 06 Spray booth #5**

This spray booth will consist of two paint spray applicators (Applicator #11 and Applicator #12).

VOC emissions:

Manufacturer's data, MSDS information, and mass balance were used to calculate emissions from the surface coating booths EP 02, EP 03, EP 04, EP 05 and EP 06. The coating used in the booths consists of sealers, toners, topcoats and thinners. The VOC contents for the coating material and thinner taken from MSDS sheets of each individual coating type and thinner type are used to calculate VOC emissions. No control equipment will be utilized for the VOC emissions. The VOC emissions from coating operations are calculated as 100% would be emitted from the spray booths where applied. The facility is potentially a major source for VOC emissions. The source has voluntarily accepted an emission limitation of 90 tons during any consecutive 12 month period for VOCs to preclude the applicability of 401 KAR 52:020, Title V permit.

HAP emissions:

No control equipment will be utilized for HAP emissions at the surface coating booths. The source wide potential to emit HAPs is below 401 KAR 52:020, Title V threshold.

PM emissions:

Spray Booths: HVLP spray guns will be used to coat cabinet doors in the paint spraying operation. Cabinet doors are considered as large parts; a transfer efficiency of 70% is assumed for particulates. PM/PM₁₀ emissions are generated from the overspray during the coating operations. Each of the coating spray booths (EP 02, EP03, EP 04, EP 05 and EP 06) will be equipped with Binks high efficiency dry filters to control particulate emissions. The estimated control efficiency for the exhaust filters is 90%. The controlled PM/PM₁₀ emissions will remain below 401 KAR 59:010 allowable.

Wood working line: Wood working process consists of cutting machines, drilling machines, shapers and saw machines. A baghouse will be utilized to control particulate emissions from wood working station. The estimated efficiency of the baghouse is 99%. The potential for particulate emissions are below KAR 59:010 allowable.

Applicable Regulations:

401 KAR 59:010, New process operations is applicable to the each facility (EP01, EP02, EP 03, EP 04, EP 05 and EP 06) for particulate emissions.

401 KAR 63:002. 40 CFR 63 Subpart JJ—National Emission Standards for Wood Furniture Manufacturing Operations is applicable to Northern Contour for HAP emissions. The source shall comply with the limits and criteria specified in 40 CFR 63.800(b)(3) to be an area source for the purpose of Subpart JJ and shall not be subject to any other provision of this rule except record keeping for HAP emissions.

The source shall emit no more than 4.5 Mg (5 tons) of any one HAP per rolling 12-month period and no more than 11.4 Mg (12.5 tons) of any combination of HAP per rolling 12-month period, and at least 90 percent of the plantwide emissions per rolling 12-month period are associated with the manufacture of wood furniture or wood furniture components to maintain the area source status.

PERIODIC MONITORING:

Compliance with annual emission limitations will be ensured by monitoring, record keeping and reporting specified in the permit. The Division is requiring the source to keep monthly records of usage of paintings and solvents at each of the spray booths. The source shall also keep records of the monthly and the twelve months rolling total for VOC emissions.

The Division is requiring the source to maintain a log of the pressure drop readings across the particulate filters and the baghouse, including the time, date, identity of the personnel making the record, the dates of filters and fabric bags replacements.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.